




University
of Glasgow

Building and Executing MOOCs

A practical review of Glasgow's first two MOOCs
(Massive Open Online Courses)

A young woman with long black hair and glasses is looking down at a tablet. She is wearing an orange jacket over a black and white striped shirt. The background is a blurred indoor setting with a green pillar.

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FOREWORD

The research project that led to the creation of this document was funded by the Learning, Teaching and Development Fund (LTDF) 2014/15 . We wanted to supply you with a practical overview of the design and implementation of the University's first two MOOCs which were delivered in the summer of 2014 by The College of Medical, Veterinary and Life Sciences (Cancer in the 21st Century: The Genomic Revolution) and The School of Law (Right vs Might in International Relations).

There is a growing body of research into MOOCs, and already a great deal available to read about the MOOC experiences of other education-providers. However, there is considerably less by way of specific, practical guidance in how to go about actually designing and developing a course of this type based on hands-on experience. Therefore, this document has been designed as a point of reference for future MOOC developments, allowing you to gain at least some insight into the process, resource and timing involved in producing a MOOC.

This document reports some quantitative data about the enrolled participants on the MOOCs such as: how many enrolled; where the drop out points occurred; how many completed each course; where the participants were based; and so on. We also present some qualitative data which comes from participant surveys and interviews with key academic and support staff involved in the design and development of each course. These data are intended to inform and explain the broad patterns of user behaviour and engagement identified via the quantitative analysis.

Finally, we outline the pedagogical approach taken in the design and delivery of both MOOCs, the tools and technologies that were deployed and key content sources the teams discovered in order to make the course a successful learning experience for the participants. We have included several tips and hints which we hope you will find useful in avoiding some of the pitfalls encountered by our MOOC teams.

We hope that this document helps you to get started on your MOOC journey, and we wish you the best of luck in creating your own innovative and engaging courses.

John Kerr

Learning Innovation Officer - College of Social Sciences

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PRELIMINARIES

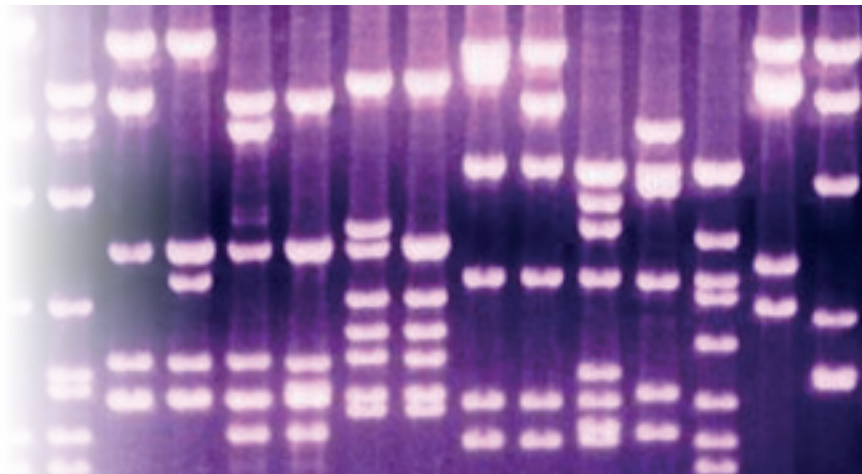
Right vs Might

- 5,855 enrollments
- 3,181 learners
- 22,651 comments posted
- 6 week duration



Cancer in the 21st Century: The Genomic Revolution

- 7,765 enrolments
- 2,730 learners
- 8,468 comments posted
- 6 week duration



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PROJECT BACKGROUND

In April 2013, the Vice Principal for Learning and Teaching announced a partnership with the MOOC provider, FutureLearn, to produce two initial MOOCs to go live in the summer of 2014. There were two main drivers for this venture:

1. to be part of the evolving MOOC landscape, providing high quality, open education to the world
2. to evaluate the applicability of MOOC technologies and their emerging models for online education

A call for expressions of interest was then made to staff, coupled with introductory sessions, that set out to inform what MOOC design and development would entail. A large number of bids were received from across all Colleges with Senior Management Group agreeing to fund two; 'Right vs Might', within the College of Social Sciences and 'Cancer in the 21st Century: The Genomic Revolution' (hereafter referred to as Genomics) from the College of Medical, Veterinary and Life Sciences. At the time of writing the university has just completed a successful third MOOC, a 'mini-MOOC' three weeks in length, in conjunction with the BBC. The data from that mini-MOOC will not be reflected in this report.

FutureLearn are a private company wholly owned by The Open University and are competing with American platforms such as Coursera and EdX. The platform launched its first course in September 2013 and in its first year saw over 650,000 learners registered and over 1.4 million course enrollments. FutureLearn offer a diverse range of courses from leading universities and cultural institutions from around the world. These are delivered one step at a time, and are accessible on mobile, tablet and desktop, the idea being that individuals can fit learning around their other commitments.



PHASE 1: DEVELOPING THE MOOCS

For the development phase the MOOC teams each adopted a different model that suited the local skill set available and needs of each course. We examine each MOOC separately, to enable a more detailed evaluation of the different methodologies and models used.

	Right vs Might	Genomics
Academics involved	3	3 core + additional guests
Number of Weeks	6	6
Assessments	Peer review exercise, producing a government Memo	Peer review exercise 5 quizzes 6 end of week tests
E-learning support	2	0
Total number of steps	146	130
Total number of video clips	37	54
Average length per clip	4 minutes	6.7 minutes
Google Hangouts	4	2
Discussion forums*	39	13
Social Media	Twitter, Google+, YouTube	Twitter, Google+, YouTube
GTA Forum moderators	3 (2 hours per moderator per day - 5 days per week)	0 (academics involved moderated the forums)
*This figure represents dedicated discussion forum spaces. Each activity has a built in comment area which is not included in these figures		

Course Design

The pedagogical design was the biggest challenge we faced during this build. The material had to be designed to align with a level one undergraduate course, incorporating multimedia delivery aspects, whilst taking the learner no more than 4 hours per week to complete. FutureLearn work from the principle of an xMOOC, which is that all material essential to the course should be located on the platform with only extra, non-essential activity being housed on external sites such as YouTube. In this approach learning and teaching is centred on the predefined material, i.e. videos and text.

Each team took ownership for the structure of their course, reflecting their personal style and learning outcomes to be embedded in the course from an early stage. Both teams individually, initially held weekly team meetings where goals and project milestones were agreed. Initial elements that were agreed in principle from an early stage were:

- 1st take of material creation and deadline for each week;
- initial course outline;
- some key video times allowing for Media Production Unit to be booked i.e. landmark video.

Right vs Might

On the Right vs Might MOOC from an early stage the team decided that the social community aspect should be at the centre of the course; this is a style predominantly found at the heart of cMOOCs (connectivist courses). It was hoped that learners would question and challenge each others responses to questions. Therefore, the course was designed to allow for maximum interaction points between participants via discussion forums, allowing for a connected network of learners to form organically.

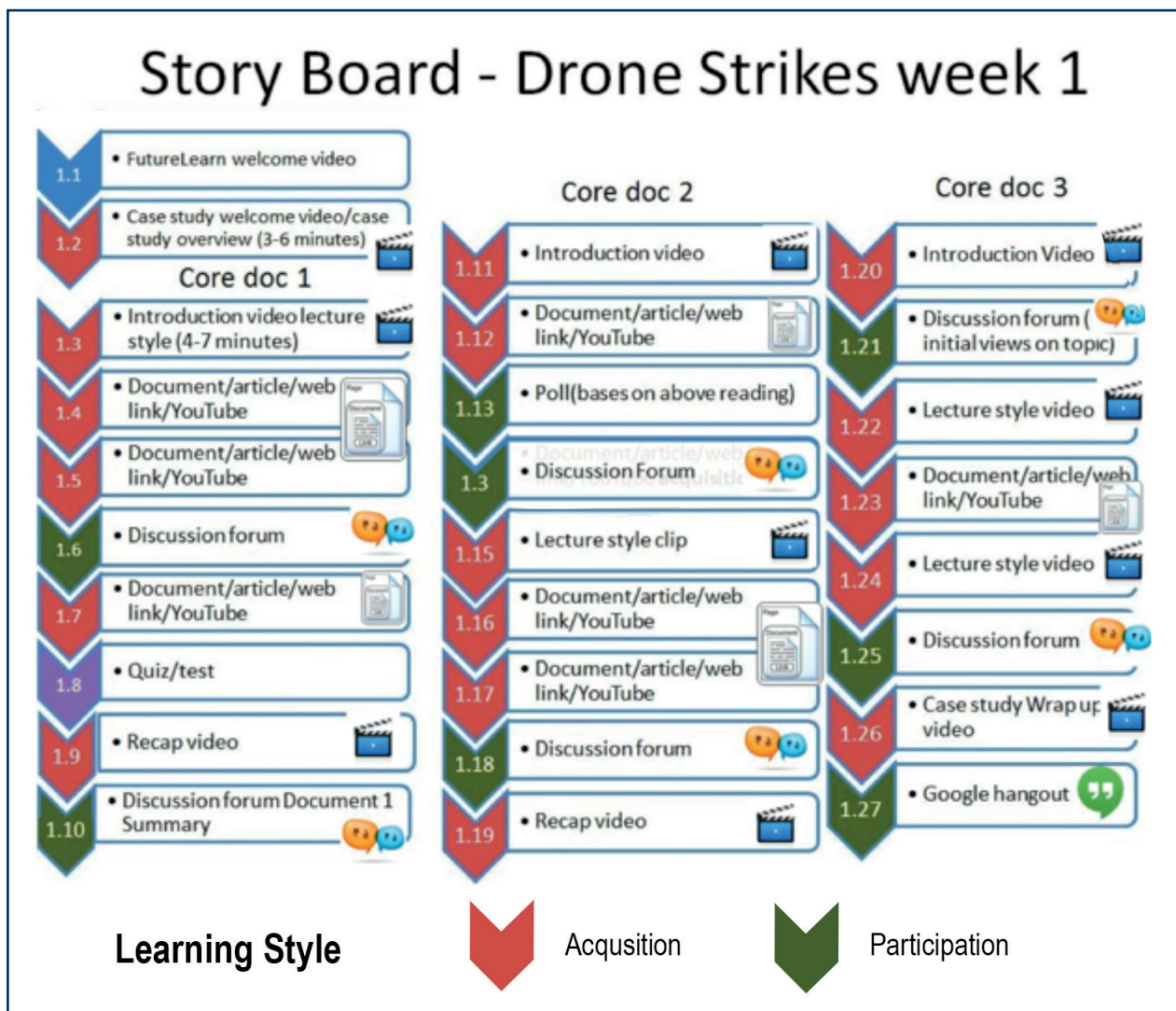
To ensure the course achieved the correct balance of xMOOC and cMOOC pedagogy, the team focused on two main learning styles: Acquisition and Participation

The RvM team also included a Live Google hangout session for three of the weeks which proved highly popular with the participants. Data and practicalities related to these sessions will be highlighted further on in the report.

The RvM course was designed for an undergraduate learner with little or no previous exposure to law as an academic discipline, although the team anticipated that many participants would indeed have experience in law, potentially as professionals or postgraduate students. This created a tension between providing enough basic information for novices but still providing stimulation for more experienced learners. This is partly why the course was designed to be a 'jumping-off point', intended to provide some basic instruction in law where necessary, but also to nourish and facilitate more complex and challenging discussions by participants, not bound by their individual competencies or previous knowledge.

The course was initially designed to be eight weeks long, with an introductory week followed by six case study weeks and then a summary week. Early on in the design process, the team decided that it would be more engaging to jump straight into a case study, specifically one which was controversial and current, in order to grab (and hopefully retain) the attention of learners from the outset. As a result, the course was trimmed down to 6 weeks (i.e. no need of separate introductory/ summary weeks).

The following storyboard is based on the material of Week 1. This was originally presented in the form of 3 core documents which were then separated into individual activities. It was used as a basis for each week to keep a level of consistency for the participants and to enable them to develop expectations and established practices as the course progressed.



Example storyboarding of week1

It was intended that the bulk of study time would be devoted to reading and watching materials put together by the course team, and then taking part in discussions and debates, moderated by 'mentors'. The team anticipated that the global nature of the audience would lead to a wide range of perspectives on each case study. The potential for some controversy was welcomed (within the limits of constructive debate) as it was felt that this would lead to greater levels of engagement and participation by learners.

Each case study centred around a key topic of debate with relevance to international relations and international law. All topics selected had been well-documented in popular debate and the media in the past, either as long-established areas of debate or emerging themes. The nature of the topics were such that the team anticipated that new legal and/or political developments could occur during the course run. Indeed, this did turn out to be the case as during the week considering debates around Global Terrorism the downing of flight MH17 over Ukraine became a topic of debate amongst the learners on the fora. In such an instance the course team were careful to encourage the excitement learners clearly felt at being able to engage with current events whilst also stressing the need for caution when considering emerging incidents. Indeed, this allowed the course team to focus the learners' attention on the subtle distinctions within international law regarding the topic area.

It was decided that the functionality offered by the FL platform at the time of designing the course did not support the types of assessment that were appropriate to the subject matter, and the law in general. It was felt that multiple choice quizzes (MCQ) were not suitable to adequately test the learners on their understanding of complex legal issues, and that ideally, an essay-based task was desirable. In lieu of this being technically possible, the team designed each week without any specific test activity, but instead with a focus on informal (and in the final week, formal) peer review. This was done through the discussion forums, with mentors providing additional, more 'official' feedback for learners as well as debate prompts; and in week 6 by employing a peer-review exercise, whereby the learners were asked to play various roles and compose government memos based on what they had learned. They were then asked to review and give feedback on the memos of other learners. More detailed information about the peer-review assignment is outlined in Phase 3 of this report.

Genomics

The design of the genomics MOOC was intended to maximize contributions from a range of experts throughout the college. In order to do this, 6 rough themes were drafted by the core team to represent the content of the 6 weeks. The concepts of 'where have we come from' 'where are we now' and 'where are we going' with regards to cancer research were integral to the design.

We set an approximate timing of 5 hours per week for each learner. However, it was expected that the range of timings would vary widely depending on the level of prior knowledge that the learner brought to the course.

Following on from these initial decisions, in conjunction with staff from the Institute of Cancer Sciences, we identified key staff who we felt might be willing to contribute to the MOOC. We then met with each of them (either in person or via online contact) and discussed the possible nature of their contributions as the core content began to take shape. This stage of identifying, informing and scheduling filming of around 30 members of staff from various locations was one of the most arduous aspects of the MOOC construction. However, we felt that it was important to follow through this approach due to the expertise this would bring and the high profile of the research of several of these individuals. The core course team also carried out some of the content design themselves

based on their own area of expertise (e.g. Leah - week 3 - inherited cancers). Once the key course material was in place (in descriptive form rather than finalised content) the remaining material e.g. quizzes, discussion points, google hangouts etc, was built up around this framework. In some respects the subject matter at times limited the scope of the discussions, however we specifically attempted to facilitate discussion wherever possible, thus aligning partially with cMOOC pedagogy in a subject area where xMOOC seemed initially to be the easier choice.

Use of E-Learning Support Staff

The two MOOCs differed in their staffing models in the development phase most noticeably due to the significant role played by two e-learning support staff in the Right vs Might MOOC team.

The Genomics team did have an e-learning support person available during the early stages of project development, but this post became vacant due to maternity leave at the beginning of 2014, and therefore much of the local project management and course build for Genomics was done by the lead academics. In some respects this was an advantage as it made streamlining different aspects relatively straightforward. However, a lack of prior experience in some areas of e-learning resulted in this being a steep learning curve and resulted in greater time pressures.

In contrast, the academic staff's developmental duties, on the Right vs Might MOOC, tended to be restricted to writing the course materials in their raw form. The e-learning support staff project managed this activity as well as building the course on the site, attending project meetings, and being involved in some content creation such as videoing, sourcing images and implementing the use of social media. In this model, essentially all activities aside from the main course writing and presenting were the responsibility of the e-learning staff.

The benefits of this approach are obvious: it lessened the burden on the academic staff considerably and ensured the skill sets of team members were used very specifically and to their best advantage. However, adding an additional layer of project management did at times become cumbersome and ineffective, especially where the project reached various pressure points and communications from within the team and the superordinate project manager in LTU started to proliferate. There were points where greater involvement by the academic staff in day-to-day MOOC project management would have been beneficial and would have helped to make communication more streamlined and effective.

Early Course Prototypes and Writing the Course

In the very early stages of the Right vs Might course, a prototype course space was set up on the existing University VLE, (moodle), to encourage the organic development of course materials online. Ultimately, this was not the way in which the course developed and the moodle space ended up being abandoned. This is not to say that it would not be a useful exercise for future course development, but the staffing model meant that academic staff did most of their course development offline, and this was then developed into an online format directly on to the FutureLearn platform by the e-learning staff. There was a clear need identified for the academic staff involved to become more familiar with online learning, with none of them having previously been involved in this mode of course delivery. Staff were encouraged to sign up for similar MOOCs being delivered at the time, in order to better understand the pedagogical underpinning and online format/ appearance/ structure of a typical MOOC, and to incorporate this into their course design.

In terms of writing the material for the Genomics MOOC, guidelines were sent out to the staff in MVLS who had shown a willingness to take part. These included guidance on the content of the presentation as well as formatting, copyright, script preparation and other issues. Despite this, probably due to time constraints on the staff involved, the core team spent a good deal of time re-formatting slides and identifying suitable images for the presenters.

The Futurelearn Platform

- Getting Started with the Course Build

Initially a 'test' course was created on FutureLearn allowing the e-learning support and staff to familiarise themselves with the current tools and functionality available on the platform. As the platform is continually being upgraded, new features were being added periodically during the course build. As these were reflected in the roadmap both teams knew what was under review and could plan accordingly. This resulted in some features such as Peer Review being developed based on the delivery dates of FutureLearn's product road map. For future MOOC developments both teams would strongly recommend that new courses are developed based on the currently available platform features to avoid the possible scenario of new features not being delivered on time or not meeting requirements. If this was to happen towards the end of the course build it would perhaps be too late to make last minute, ad-hoc changes to the course structure if videos have been shot and produced to encapsulate specific content.

Video Production

The centrally-based Media Production Unit (MPU) were ring-fenced as a key resource for both MOOC teams from the beginning of the project, but the way in which they were used varied between the two MOOC teams, partly because of varying requirements and video styles, and partly because of the existing skill sets and resources available to the Right vs Might team which were not available to Genomics.



Location shots of Right vs Might

It was clear that video was going to form a key component of both courses, but at the beginning of the project it was rather unclear to what extent this would be and how much resource (time and budget) would be required. One of the first video deliverables was a so-called 'Landmark' video, which was intended to summarise and promote the courses. This was required around three months before the launch of the course. It was specified by FutureLearn that this content should have high production-values, be of a specific duration (i.e. no more than 3 minutes) and give a suitable taster of the course for a global audience. For the Genomics MOOC the scripting and filming of this video was a relatively straightforward process as media services had pre-sourced music and existing University images for much of the footage. For Right vs Might, this came together once more of the core content had been produced, as the Landmark was essentially a pastiche of the videos from each component week. Cutaway images and music were sourced to further enhance the professional quality of the finished video.

Right vs Might

In terms of the core media content of the MOOC, Right vs Might had around 5 or 6 videos per week, including an introductory and summary video each week. Videos tended to be short, of around 3-7 minutes in duration, and consisted mainly of a single talking head/ piece de camera style shot with some cutaways to images where appropriate. In addition to some limited video production by the MPU, the majority were filmed by the e-learning staff.

It took around 250 hours to shoot and edit the 37 video clips. Of this time around 60-80 hours was spent shooting and location sourcing, with remaining 170-190 hours allocated to post production and uploading of the material to the FutureLearn site.

To capture and edit the video clips the following equipment was used:

- A Canon EOS 600D camera
- Rode Pro Directional Mic and tripod. No professional lighting or sound recording was used
- 21.5inch iMac with i5 processor and 8GB of RAM
- iMovie was used to edit the clips and included the topping and tailing with a title board and an acknowledgement board
- Care was taken to ensure a suitable backdrop was used that framed the presenter well

For videos shot without support from MPU, existing internal lighting of rooms was relied upon due to the absence of a professional lighting rig.

Genomics

The Genomics MOOC had an average of 7 content videos per week plus a short introductory and a summary video each week. The core videos were around 7 minutes in duration although these ranged from around 4 to 9 minutes. The introductory and summary videos tended to be 1-2 minutes long. The vast majority were filmed by MPU staff and consisted of brief shots of a single talking head with cutaways to slides forming the principal component of the videos. The total time for media services to produce and edit the content was around 348 hours.



Social Media

As discussed previously, the approach taken by FutureLearn tends towards the xMOOC style, where there is a definable set of course materials available for signed in learners to access within a static platform, but with elements of a cMOOC in that learners are encouraged to jointly negotiate the materials and engage in online discussions as part of the learning experience. In this sense, the FutureLearn model is rather a hybrid in its pedagogical approach. In some MOOCs, additional social media such as Twitter plays a direct role in the learning experience, and this was not the case for either MOOC discussed here. Twitter was used, but in keeping with FutureLearn's brand approach to using social media, this had a primarily PR-based function, used (mostly) pre-delivery as a tool to advertise the courses and stir up online 'buzz'.

The Right vs Might team tended to piggyback on any relevant news stories which related closely to one of the six case-study topics that happened to come up in the news, providing a link to the story in a tweet which would also prompt with a question or direction to sign up to the course if interested. The Genomics team also posted links to relevant news stories, for example from the Cancer Research UK website.

Overall, it is important to remember that much of the approach taken by both teams was quite firmly steered by the FutureLearn guidelines. Even the use of social media operating outwith the main platform was dictated to a certain extent by FutureLearn, who steered the teams during a 'social media meeting' one week before each course went live.

Use of social media during the delivery phase of the MOOCs is discussed separately below.



Copyright Costing

During the course build copyright was always at the forefront of course team discussions. Each course embedded and linked to an extensive range of copyrighted material such as, images, music, video, articles, and text which often included negotiation of licences.

Right vs Might outlay on copyright clearance was:

- Two, 3 minute, BBC video clips - £2000 + vat
- Music for landmark video clip- £300 + vat

As the majority of the material used was developed specifically for this MOOC or came from United Nations sources which are freely available to distribute, copyright costs were relatively low.

The BBC footage licence was only for this particular course and comes with a 10 year licence limitation. The intricacies of dealing with the BBC for material is challenging as most footage still has to be edited if it comes from another supplier or broadcaster. We recommend identifying clips to be utilized at the beginning of the course design to make the process of sourcing and editing easier and more efficient.

Below is a breakdown of websites the RvM team used to locate royalty free material:

- Wikimedia Commons: images - roughly 300 sourced
- Shutterstock (University licence): images - roughly 15 sourced (Maximum allowed 7 images per day)
- BottledVideo: Video - 4 sourced

The team attributed the material with the author name and creative commons licence details (where applicable) in the licence section on the platform. For YouTube and websites the link was embedded in the course material, sending the user to the originating site to avoid infringing on existing copyright. As FutureLearn ask that only 'additional' rather than core material should be externally hosted, both teams had to factor this in at the content design stage.

Genomics outlay on right clearance was:

- Music for various clips - £369
- Graphics - £90
- Various images - £300
- BBC footage - £500
- Science Library - £320

Below is a breakdown of websites used to locate royalty free material:

- Wikimedia Commons: images - roughly 54 sourced
- Wellcome Images: images - roughly 25 sourced
- Images made by the presenter themselves - roughly 26 images

There were several images for which Genomics paid for other sources such as graphs from journal articles.

For each week a file containing each of the images and the source/copyright information was displayed as an attachment to the introductory video. The team found this a less cumbersome way of handling the acknowledgements and it allowed them to easily keep track of all images used.



Example montage of some of the Genomic images used during the course

Example montage of some of the Right vs Might images used during the course



Time dedicated to Copyright and Image Sourcing

Time was a major factor in sourcing images, video and checking copyright for both MOOCs. For Right vs Might the team estimate that this activity took in excess of 70 hours to complete over the duration of the course design and 60 hours for Genomics team.

Even once images had been successfully sourced, further obstacles appeared, such as the process of successfully embedding the images into the FutureLearn platform. Some sites will not allow linking to the image location and embedding within another website. As FutureLearn require all linked images to be in Https format, this made the process more complex and time consuming. To overcome this we opted to source as many images as possible from Wikimedia Commons, which allows Https embedding. For images we had locally stored, i.e. on our computer, the Right Vs Might team uploaded these to DropBox and created a Https link from there. The Genomics team used a similar approach but used Flickr to upload and store photos allowing for an Https link to be created.

Some images had to be altered from their original state so they would fit the size for embedded course images as stipulated by FutureLearn. For this Photoshop was used to crop, edit and in some cases enhance the image. There are free packages that provide the same functionality as Photoshop, for example GIMP, if you do not have a photoshop licence. To create photo montages the free site fotor was used:

www.fotor.com/features/collage.html

Accessibility



Video captions example

All material on the FutureLearn site is expected to meet accessibility standards. The site is designed to allow this to be relatively easily incorporated and includes image description for alt text screen readers, video captioning and transcripts for video and audio content. All video content must contain video captions and transcripts. For this a website called 3playmedia is used. This is a free service where the finished video clips are uploaded and the website produces video captions and a transcript.

DOWNLOADS



DRONE STRIKES INTRODUCTION TRANSCRIPT PDF

Downloadable transcript from Right vs Might

Cancer in the 21st century: the genomic revolution

Step 6.1: Introduction to week six

Sarah Meek

Welcome to the final week of Cancer in the 21st Century, the Genomic Revolution. This week, we'll focus on where the latest cutting-edge research in cancer may be leading. You'll hear from several different cancer researchers here in Glasgow about current research in their laboratories.

They'll describe how they are using modern research techniques, both to understand cancer better and to devise new treatment approaches. These techniques include use of genetically engineered mouse models and bioinformatics approaches like large-scale genome sequencing.

You'll also hear about the emerging research field of epigenetics and how this is involved in cancer. Epigenetics is the study of heritable changes in gene activity that are not caused by DNA sequence changes. And you'll get the chance to do some investigation of your own into this topic using, an online medical literature database.

Finally, we'll consider the practical implications, such as cost and ethics, of the new approaches to cancer diagnosis and treatment that are emerging from this new research.

Example transcript from Genomics

The service provided by 3playmedia meant that a high degree of confidence in the accuracy of transcripts was possible, but it was nevertheless necessary to proof read all transcripts before upload to eliminate minor errors. Futurelearn latterly provided a template document to use for this purpose which wasn't available at the beginning of the course build. Once all transcripts were checked and edited on 3playmedia, the final captions and transcripts were then attached to the video step on the FutureLearn site.

Another point that both teams had to consider was the use of alt text. In essence, all images must contain an image description that describes the context of the image so it can be read aloud by a screen reader or displays as text if the user's device cannot display the image. In other words, the alt text should describe the contents of the image visually, rather than just repeating the image title.

Quality Assurance

Quality assurance took place within two discrete stages: internal and external; and within each of these stages were several further smaller steps. Within the internal review, this was essentially on-going during the course development phase. For Right vs Might, once the main body of the course was built on the site, it was reviewed by one non-subject matter expert for basic typos, grammar and basic readability, as well as by the graduate teaching assistants to quality assure the substantive pedagogy and subject content. For Genomics, the internal review was carried out by a subject specialist who was minimally involved in the previous content generation and was carried out to ensure the scientific quality and accuracy of the material as well as for more general proof reading. Ideally we would have wished to have a non subject expert also review the material but this was not possible due to time constraints.

The external quality assurance then followed approximately one week before the course was due to launch, which was unfortunate in that it meant all changes (and there were a high number of these) had to be implemented on the site and rechecked before the course went live in this relatively short period of time. This was carried out by a member of FutureLearn staff and (for Right vs Might) the e-learning support staff. The external review focused on the following:

- Typos and grammar;
- Brand language/ message (i.e. in keeping with FutureLearn guidelines);
- Pedagogy and learning experience;
- Accessibility issues such as alt text;
- Formatting and images

Overall, the process was rigorous and resulted in the live course having minimal typos or content errors. This may seem inconsequential, but learners very quickly pick up upon even the smallest of typos and so even a few minor errors potentially could be quite damaging to a learner's overall impression of the institution and is best avoided!

Staff Training

The two teams adopted a different approach to training due to the differing staff involved. In advance of the course going live, the Right vs Might team provided approximately one days' worth of training for the GTA staff. This aimed to:

- 1) Enable the team to become better acquainted;
- 2) Agree and firm up shift work arrangements;
- 3) Review the course materials;
- 4) Answer any questions and familiarise the GTAs with the admin site view;
- 5) Develop a shared strategy for dealing with problem postings, etc.

The sessions (split over two half-days) were informal in tone but a useful end to the development phase as the team prepared for live delivery of the course. In particular as the GTAs had not been heavily involved in the development stages of Right vs Might this gave an important opportunity for the GTAs to discuss their intended 'mentoring' style and approach to the learning community.

As the Genomics MOOC was delivered by the core academic team, discussions relating to the running of the course were generally informal and took place during more general team meetings.

Summary of Development Phase

In total course development for Genomics was estimated to have required 1760 hours of core team academic time, and 476 hours of other academic staff. For RvM, course development was estimated to take 360 hours of academic time and 7 months of 0.8FTE Learning Technologist time. This isn't to suggest that future MOOCs will take as long to develop: indeed it is hoped that the existence of this help document will ensure much of the uncertainty and process of trial and error that was inherent in these early courses will not exist in future courses, at least not to the same extent. Although the two teams took different approaches to staffing during the development phase, both approaches placed a considerable time burden on those involved. The law model demonstrates that the involvement of specialist e-learning staff can alleviate significantly the burden placed on academic staff in this respect, at least in terms of project management.



PHASE 2 - DELIVERING THE MOOCS

RIGHT VS MIGHT IN INTERNATIONAL... UNIVERSITY OF GLASGOW



123456

Course info • Leave this course

Go to course

CANCER IN THE 21ST CENTURY UNIVERSITY OF GLASGOW



123456

Course info • Leave this course

Go to course

Screenshots from the FutureLearn course page

The **Genomics** MOOC ran for 6 weeks from 19th May - 29th June 2014 and the **Right vs Might** MOOC ran from 23rd June - 3rd August 2014.

Discussion Moderation

Based on the experiences of the two Glasgow MOOCs, forum¹ moderation is a vital component of a MOOC's success. For both courses, this was the single biggest factor in keeping participants engaged throughout the duration of the MOOC. It allowed the participants to feel part of a larger cohort which collaborated on activities and enabled learners to guide one another through the material, in keeping with a social connectivist model. At the beginning of the course development process, the concept of MOOC forums was rather uncharted territory for both teams, and the potential high number and frequency of forum posts was daunting. It was difficult to know what to expect, and therefore how to prepare the team for dealing with moderation. Both teams came up with their own strategies for dealing with hypothesised large cohorts which, in hindsight, were very successful.

¹ FutureLearn avoid the use of the term 'forum', and instead prefer course providers to refer simply to 'discussions'.

Right vs Might focused on three lead academics, each delivering two weeks of material each. This was supervised by three GTAs who monitored the forums in shifts. This was broken down into three daily shifts with 2 hours allocated per session:

Week No 1	Morning slot (until 14.00)	Afternoon Slot (14.00-19.00)	Evening slot (19.00 onwards)
Monday 23/06	GTA 1	GTA 2	GTA 3
Tuesday 24/06	GTA 1	GTA 2	GTA 3
Wednesday 25/06	GTA 1	GTA 2	GTA 3
Thursday 26/06	GTA 1	GTA 2	GTA 3
Friday 27/06	GTA 1	GTA 2	GTA 3

By breaking days into shifts it allowed key interaction points of the day to be moderated, ensuring help was at hand to guide and navigate participants through the course. The course team was very explicit with participants about the use of graduate mentors and introduced them to learners at the same point as the academics via a 'Meet the Team' step. This allowed a sense of familiarity to deepen between the participants and the staff as a way of introduction. It also allowed learners to better visualise the individual course team members with whom they were interacting in the discussions. The GTAs focused almost exclusively on the current week in progress (the exception being replying to relevant specific comments from previous weeks) and this was communicated to the learners. Generally, the GTAs responded to specific subject-matter questions or points of law asked by learners; however, the GTAs (where appropriate) sought to prompt debate by posting supplementary questions that considered ongoing events or alternative approaches to the broad questions being posed in the course content. On occasion it was also necessary for GTAs to encourage learners to adhere to respectful conduct whilst on the FutureLearn site. However, the need to do this was relatively rare and the need to report learners (via the FutureLearn report mechanism) was extremely rare. In this moderation task GTAs were assisted by the e-learning support as well as the ongoing FutureLearn moderation.

Genomics' approach involved the academics moderating the forums themselves. For the first three weeks of the MOOC the day was split into 3 sessions of morning, afternoon and evening (weekdays only) and each member of staff was scheduled to cover one of these. Additionally the academic staff moderated the forums at weekends as time permitted. We found this model, although fairly rigid and requiring an initial time commitment from the academics, did allow us to easily keep abreast of the discussions and respond to participants quickly and with reasonable depth. Additionally other involved academics contributed to the discussion from time to time. In the last three weeks of the MOOC we employed a GTA to continue to review earlier weeks' content to ensure that no inappropriate comments had been posted. As the weeks progressed and we became more familiar with the types of questions, the moderation structure became more relaxed and we contributed as and when required.

Google Hangouts

A Hangout on Air is an online tool provided by Google which enables a user or group of users to collaborate by video and broadcast live to a global audience. The audio visual quality of a hangout depends upon the quality of internet connection and hardware such as webcams used by participants. Generally the videos are not comparable in quality to the pre-designed video content on the FutureLearn site, but this is acceptable given the live nature of the product, and learner expectations of production quality tend to be lower as a result.

Hangouts were an additional option open to course authors in order to maximise learner exposure to academic staff on a synchronous (and asynchronous) basis. Both Genomics and Right vs Might utilised this option, with differing engagement patterns by both learners and academics. This approach also enabled academic staff to respond in a timely manner to issues and questions arising during course delivery and (it was anticipated) give added 'value' to the static course materials. Using open source tools via the Google site, hangouts (including their content) were planned and advertised on the FutureLearn site in advance. Sessions were also set up in advance on Google so that working links could be provided within individual steps.

In order to set up a hangout, a google account with an associated YouTube account is required. Rather than using personal accounts, Right vs Might set up a generic course account which followed the existing social media naming conventions. The Right vs Might team were based in Germany during many of the hangout sessions, and therefore a member of the e-learning support team was designated to run the hangout from the UK and provide technical support, adding an additional layer on to the usual process for running this type of activity, which is normally controlled by a single user. This approach was taken as it was felt this would provide additional support for academics who were not confident using the software, at least in the first few sessions, and also ensure all hangout activity was centrally managed, affording more control and consistency to the whole process.


Hangouts were scheduled to last for approximately 30 minutes for Right v Might. The team tended to use them towards the end of a week if an academic was available to discuss key themes and questions that arose during the course of that week. Questions were invited in advance of as well as during the live session. Advance questions were invited via the step on the FutureLearn site, via Twitter and beneath the hangout. Live questions tended to be submitted via an optional 'Q&A' app on the hangout which had to be enabled for it to work. If this app is enabled, live questions scroll down the right of the screen, and can be managed by ratified participants (e.g. the academic, e-learning support, invited guests, etc.)

Advance questions were collated the day before the scheduled hangout by a mentor who provided the academic participant with a brief summary of areas to target alongside specific recurrent or pertinent questions. This mentor also assisted during the live session by fielding live questions via the Q&A app and Twitter (the latter did not yield many

questions). The mentor emailed a further summary of this content to the academic at an agreed point during the hangout so that the academic himself did not need to pay attention to the question feed. Ultimately, this may not have been the most effective way of managing live questions (one academic did monitor the feed himself) as it seemed to add an unnecessary layer of complexity where the academic running the hangout would have been better placed to monitor the feed himself.

1.5

Google Hangout session

 140 comments


Hello everyone, Robin will be running a Google Hangout session for this week's case study on Friday 27 June at 2:00pm GMT+1 (British Summer Time). It would be great if you can find the time to join us.


You can watch and participate live via our [Google+ page](#) or by watching on our [YouTube channel](#). You can post up questions for Robin to answer via our twitter feed (@UofGLawMOOC) and via the hashtag #FLRightvsMight before the session starts and also during the session.

This session will provide another opportunity to discuss the various legal issues raised by lethal drone strikes.

If you can't make it then you will be able to watch the recording at our [YouTube channel](#) at a later date.

© University of Glasgow

 140 comments

 Mark as complete

◀ PREVIOUS

NEXT ▶

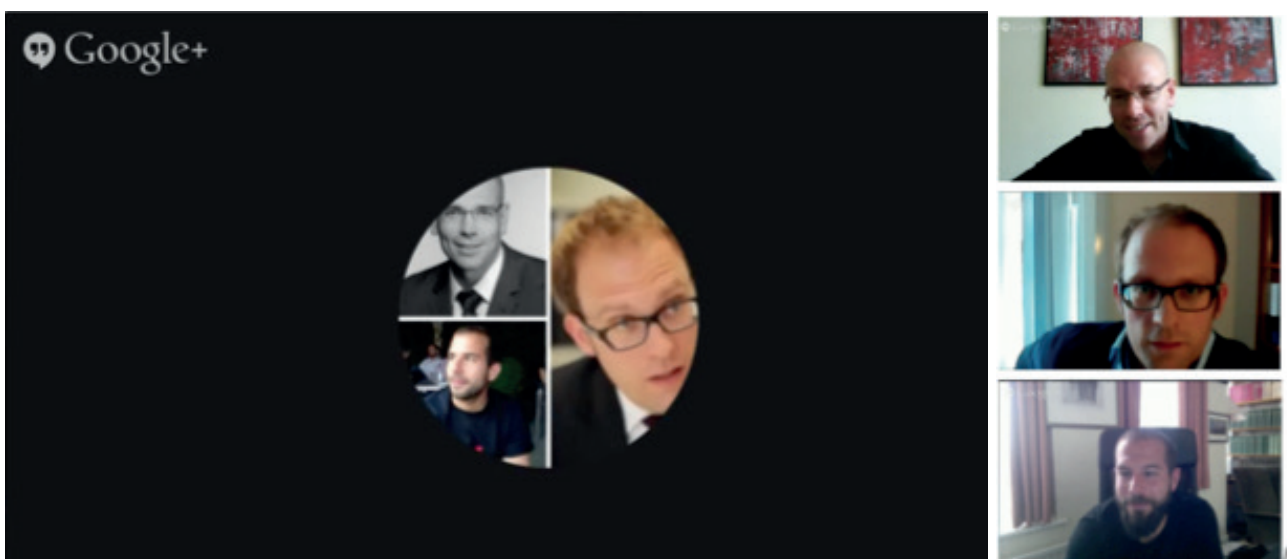
Picture X example hangout step (RvM)

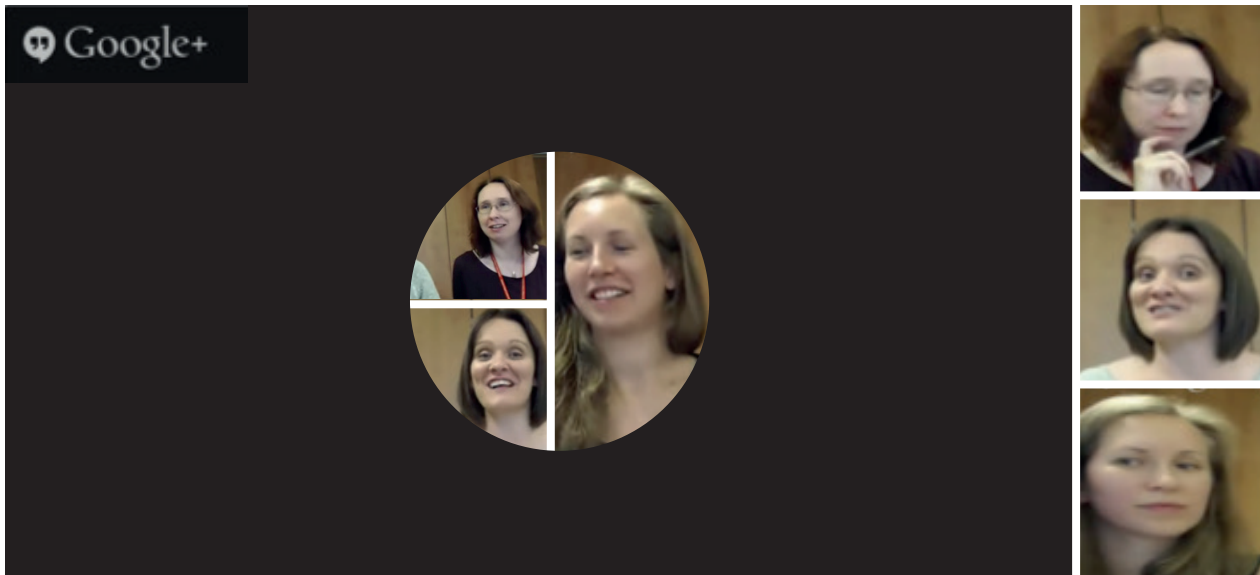
Genomics hangouts were scheduled to last for a slightly longer period of 1 hour. They were run on the Thursday of weeks 3 and 6 and consisted of 2 or 3 of the key academics addressing predominantly questions asked in advanced via the FutureLearn site. Although there were a variety of other options available (e.g. Twitter) for asking questions, the uptake of these was very low in comparison with the number of questions asked on the FutureLearn site. Once the Hangout was complete, a number of links were posted relating to the questions answered and discussions continued to take place. A transcript of the session was uploaded later and seemed to be very well received.

	Right vs Might	Genomics
Google Hangout Sessions	4	2
Weeks of Hangouts	week 1 - week 2 week 3 - week 6	week 3 - week 6
Live Viewers	week 1=105 - week 2=26 week 3=29 - week 6=30	week 3=43 - week 6=32
Retrospective Watchers (YouTube page)	week 1=1014 - week 2=560 week 3=450 - week 6=128	week 3=43 - week 6=32
Tudou (Chinese version of YouTube)	week 1=5 - week 2=6 week 3=6 - week 6=0	N/A

Table X: Google hangout statistics

Both teams included Hangouts because it was felt this would add a great deal of value to the course, and provide learners with the opportunity to engage synchronously with academic staff and in a more visual manner than in the discussion forums. The tool provided an ideal way to pick up on current course questions and themes that would not have been so effective or engaging had this been done by course email alone. Although numbers dwindled towards the end of the courses, this appears to reflect the general decrease in learners across the course, rather than a falling engagement with the hangouts themselves.





Google Hangout Participant Feedback:

“Thank you Robin for taking the time to answer our questions and lead the debate on this issue of drone strikes. Looking forward to next week’s discussions.”

(Week 1 – Drones, RvM)

“Sorry I was unable to attend the live event but really enjoyed the recording. I thought the questions and answers would be too technical for my level of understanding but on the contrary they were practical and useful for even the layman. I feel that many old wives tales were addressed.”

(Week 6: Genomics)

“Still only just getting the hang of these hangouts - enjoying them though.”

(Week 2 – Guantanamo bay, RvM)

“Thank you for an informative and interesting session Prof Tams. I will use the discussion to formulate my contribution for the weeks writing.”

(Week 2 – Guantanamo bay, RvM)

“Have just gone back to view the hangout video as I wasn’t free for the live broadcast and moved on past it to try and catch up. Glad I did, it was excellent value thank you very much. I notice a whole host of additional links in your follow-up comments below. I guess there goes another hour or two!”

(Week 3: Genomics)

“Enjoyed the hangout, Robin. Thanks for taking the time to share your knowledge!”

(Week 1 – Drones, RvM)

“The course staff are so good and know what they’re talking about. It is remarkable that we can get instruction as good as this, free over the internet. It saves a lot of reading, when you can listen to people who have already done it.”

(Week 3: Genomics)

“Sorry I was unable to attend the live event however i really enjoyed listening to it as it had really useful information and answered all my questions. thank you.”

(Week 6: Genomics)

As the selection of above comments shows, hangouts were generally well received and appreciated by those who viewed them, whether live or recorded. As the numbers in the google hangout statistics table above show, the recorded sessions were preferred over the live ones, but those who did engage were mostly positive in their feedback. In general it was felt that hangouts provided the opportunity for broad themes or questions emerging during the week to be addressed by an authoritative source. This was useful for both MOOCs but perhaps particularly helpful for the more abstract debating nature of Right vs Might. Indeed, it was felt that the hangouts in Right vs Might enabled the forum debates to move beyond any argumentative ruts that had been encountered during the week.

Overall, both teams found that hangouts were a useful addition to the course, and they fitted in well with the more formal, static course materials.

Ongoing Communication

Futurelearn encourage course providers to communicate en masse with their learners via emails. These communications take several forms, perform different functions, and are based around a set of templates available on the site. The course teams were able to adapt these templates to their own needs, but Futurelearn tended to prescribe some of the content to ensure consistency of message, branding, tone, etc. All course emails were checked by a member of the Futurelearn team and changes agreed in advance of them being sent out, although this model is not necessarily applicable to future courses. At the point of delivery of the two Glasgow MOOCs, emails were required to be ready at least 24 hours in advance of their due date, but it was possible to send emails out with short notice if unavoidable.

Both course teams utilised mass email communication, with slight differences in their approach in terms of template used, content, frequency and number. Both teams provided 'reminder' style emails which went out one month and one week in advance of the course start dates. They also both provided weekly 'welcome to week X' emails which went out on a Monday morning (prepared and sent to FutureLearn at the end of the previous week). The Right vs Might team also used mid-week emails to advertise hangouts (these went out on a Thursday for hangouts taking place on a Friday) and also a wrap-up email at the end of each week, which thanked learners for taking part and highlighted key points, as well as answering any questions that might not have been fully dealt with in the hangout.



Hello Cancer in the 21st Century Course Leads,

Welcome to the final week of our course, Cancer in the 21st Century: The Genomic Revolution.

You can access the course for this week here:

<https://www.futurelearn.com/courses/cancer-and-the-genomic-revolution/todo/150>

Last week, we learned about targeted, or personalised, therapies - cancer treatment tailored to the individual patient's disease. We saw how different cancers can be classified based on the genetic changes they have acquired, and that this can now be used to target treatments more effectively. We described how the metabolic changes seen in cancer cells could be exploited to devise new therapies. Finally, we discussed the problem of cancers developing resistance to therapies, and looked at key issues surrounding clinical trials for newly-developed cancer treatments in the post-genomic era.

This week, in week six, we will focus on some examples of cutting-edge cancer research, and where these are likely to lead in the future, in terms of diagnosis and treatment. We will look at how mouse models are being used to improve treatments, particularly for more difficult-to-treat cancers such as pancreatic cancer. We will discuss the current 'hot topics' of cancer genomics and epigenetics, and see how progress in understanding the tumour suppressor p53 is being used to design new treatments. You'll also get the chance to do your own research using a medical literature database. Finally, we will learn the importance of bioinformatics in cancer genomics research.

On Thursday of this week, we will be hosting a Google Hangout, where you'll get the chance to ask questions on course content, and meet the team. This will be a live broadcast on the internet, and you will be able to ask questions both before the event, and during the live broadcast - please see Step 6.23 for more detail and instructions:

<https://www.futurelearn.com/courses/cancer-and-the-genomic-revolution/steps/11490/progress>

Many of you are still working through the earlier material, which is great. Please do keep working at a rate that fits in with your other commitments, and remember that the material will remain accessible indefinitely after the course finishes. However, please note that in general Educators will not be able to post comments out of the current week. You can access your to do list here:

<https://www.futurelearn.com/courses/cancer-and-the-genomic-revolution/todo>

Finally don't forget that you can purchase a statement of participation on this course. If you want one you will need to have marked at least 50% of the steps completed and attempted all the tests:

<https://www.futurelearn.com/courses/cancer-and-the-genomic-revolution/statement-of-participation>

We hope you find this week's topics as fascinating as we do. We are looking forward to interacting with you this week!

Best wishes,

Dr Leah Marks and Dr Sarah Meek
Lead Educators,
University of Glasgow


>Hello John,
>
>We're really looking forward to welcoming you to Right vs Might in
>International Relations next week.
>
>Professor Robin Geiss will kick things off in week one by focusing on
>the controversial issues surrounding the use of lethal drone strikes
>and the role played by international law. Robin will examine the key question:
>when can a state use force in the territory of another country? You
>will have the chance to explore the topic via articles, videos and
>other readings we have put together on the course and then engage in a
>poll and wider discussions with your fellow students and the course
>team. We are very much looking forward to hearing what you have to say.
>
>Robin will be available live on Friday 27 June at 2.00pm GMT+1 (British
>Summer Time) via a Google Hangout session, where he will answer your
>questions, discuss lethal drone strikes and respond to some of your
>comments and discussions that have taken place earlier in the week. You
>can access the Hangout via our Google+ page where you can also ask
>Robin questions live:
><https://plus.google.com/events/cgvmbormlhm28d8i73joe8la414>
>Or by watching on YouTube:
><https://www.youtube.com/watch?v=ElidQqNcuJQ>
>Don't worry if you miss the live hangout as you can always watch it
>later.
>
>Whether you've studied international law before or are completely new
>to the subject, we're sure you'll find plenty to think about and
>discuss over the six weeks for which the course will run. We'll be
>covering a number of high profile and controversial topics including
>piracy, terrorism, and investment law. We're sure that whatever your
>background, there will be plenty in the course to spark your interest.
>
>There is still time to invite friends and colleagues to enrol on the
>course and take part alongside you. Having the support of learning with
>people you know can really enrich the experience of studying online -
>so do 'spread the word' about our course. As a reminder, the course
>page where they can enrol can be found at:
><https://www.futurelearn.com/courses/right-vs-might>
>
>There will be plenty of opportunity to interact with other learners
>once the course begins, if you wish. In the meantime, feel free to use
>the hashtag #FLRightvsMight for any discussions in social networks. Our
>Twitter feed is @UofGLawMOOC. We'll also be using this to field
>comments and questions during the hangout sessions.
>
>The course is due to begin next Monday 23 June. We will send a welcome
>note as soon as we have got started.


An example of the weekly email from both teams are shown above:

Social Media

Both teams utilised social media prior to and during the course to advertise the running of the course and to stay connected to users, supplying participants with course information, updates and articles of interest during the course delivery.

The following table is a breakdown of social media usage per provider:

	Right vs Might	Genomics
Twitter Handle	@UofGLawMOOC	@UofGCancerMOOC
Hashtag	FLRightvsMight	FLCancer21
Followers	180+	80+
Tweets	100+	40+

	Right vs Might	Genomics
Page Name	Right vs Might	Cancer in the 21 st Century
Followers	103	2
Page Views	15,110	912

The usage and uptake of social media was varied across both MOOCs. Both teams took to advertising the course heavily on Twitter when the course registration opened to increase course numbers.

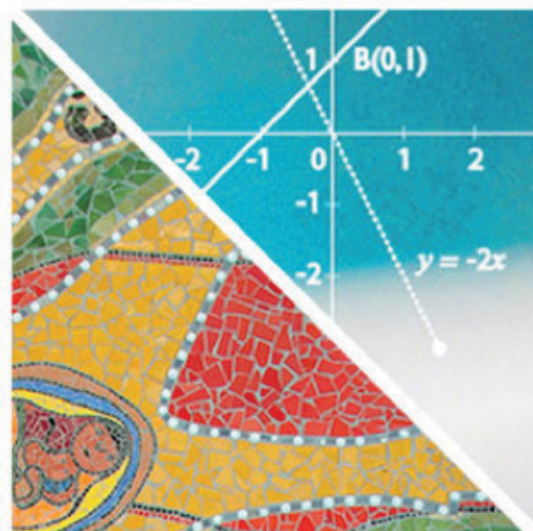
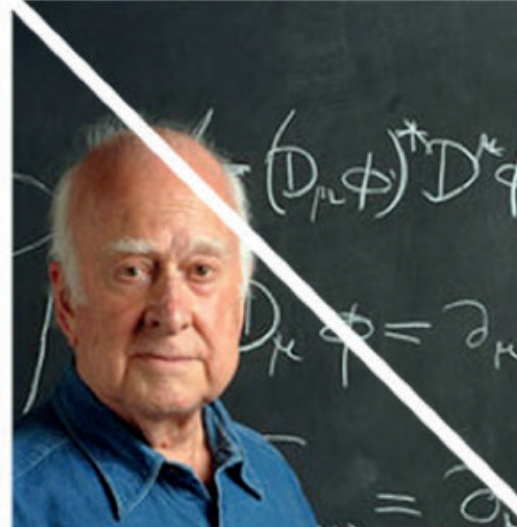
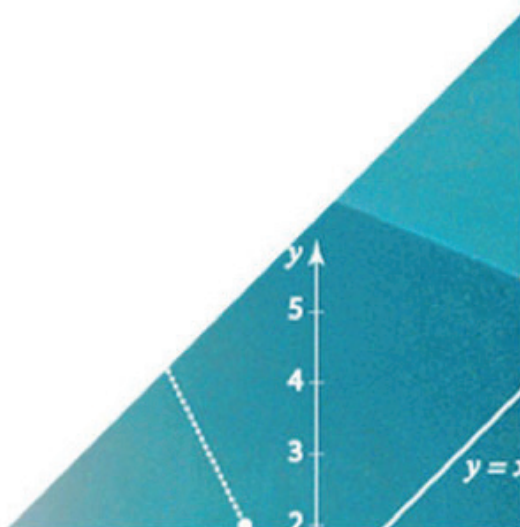
Technical Support

Although the requirement for technical support was small during the actual running of the MOOCs, the e-learning support for both teams monitored posts, mainly around the video clips, to provide assistance to those who had issues with viewing material. Coupled with this, we reported directly to FutureLearn any issues that were out of our control or we felt required their attention i.e. site improvements, videos not playing on iPads for some users.

One area which was highlighted to the Genomics team on a number of occasions was the inability to play FLASH files on Apple devices. This was remedied by the downloading of the 'Puffin' app which allowed the content to be viewed albeit in a slightly different environment.

Platform Development

The FutureLearn platform is continually under development. Before settling on defined activities we strongly suggest you look at FutureLearn's product roadmap and base your agreed activities use on products that will be delivered in advance of your course start date. It is highly advised you allow enough time for testing of any new product in case it falls short of expectations. This way you will have enough time to formulate another solution before the launch of the course.

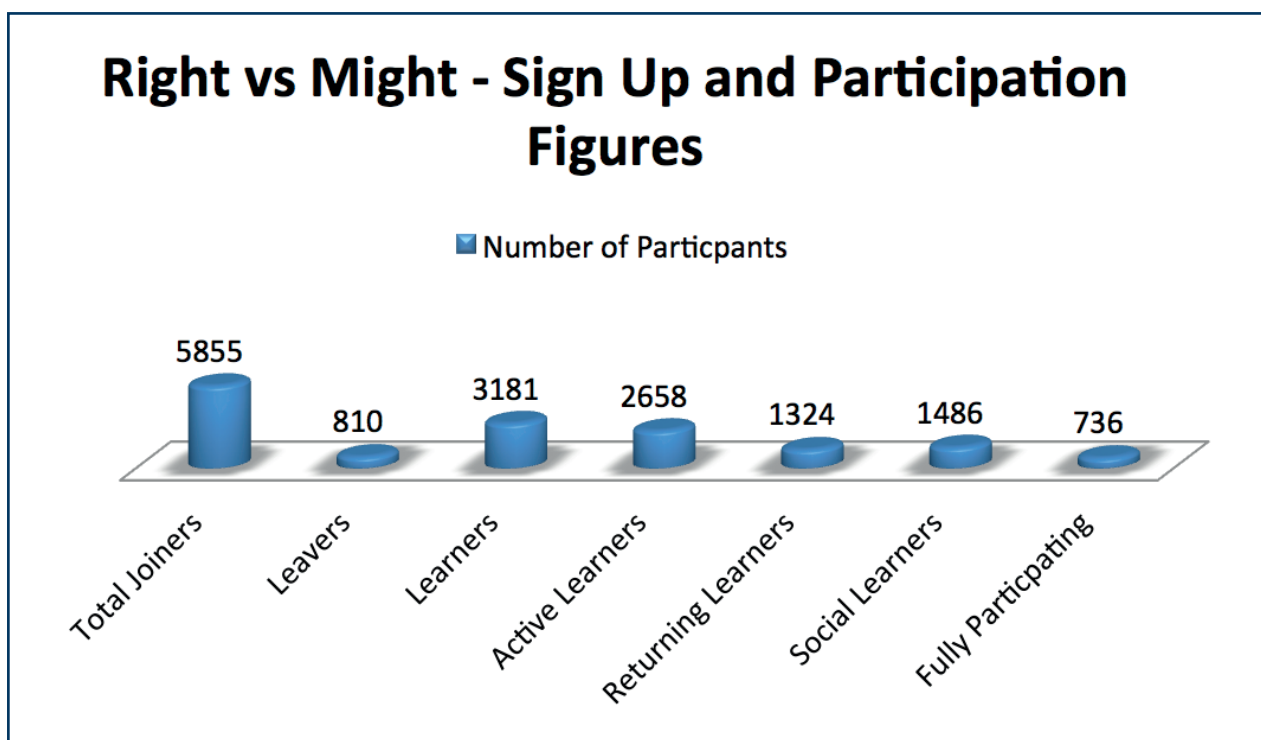


PHASE 3 - TRACKING AND EVALUATING STUDENT ENGAGEMENT

Demographics and Participant Data

Both courses achieved excellent sign up and participation figures. Sign-up rates are very hard to pre-judge with a MOOC which requires advertising to increase take-up throughout pre-course build up and continuing into the first week. Both Right vs Might and Genomics surpassed the initial expected 5,000 sign-ups.

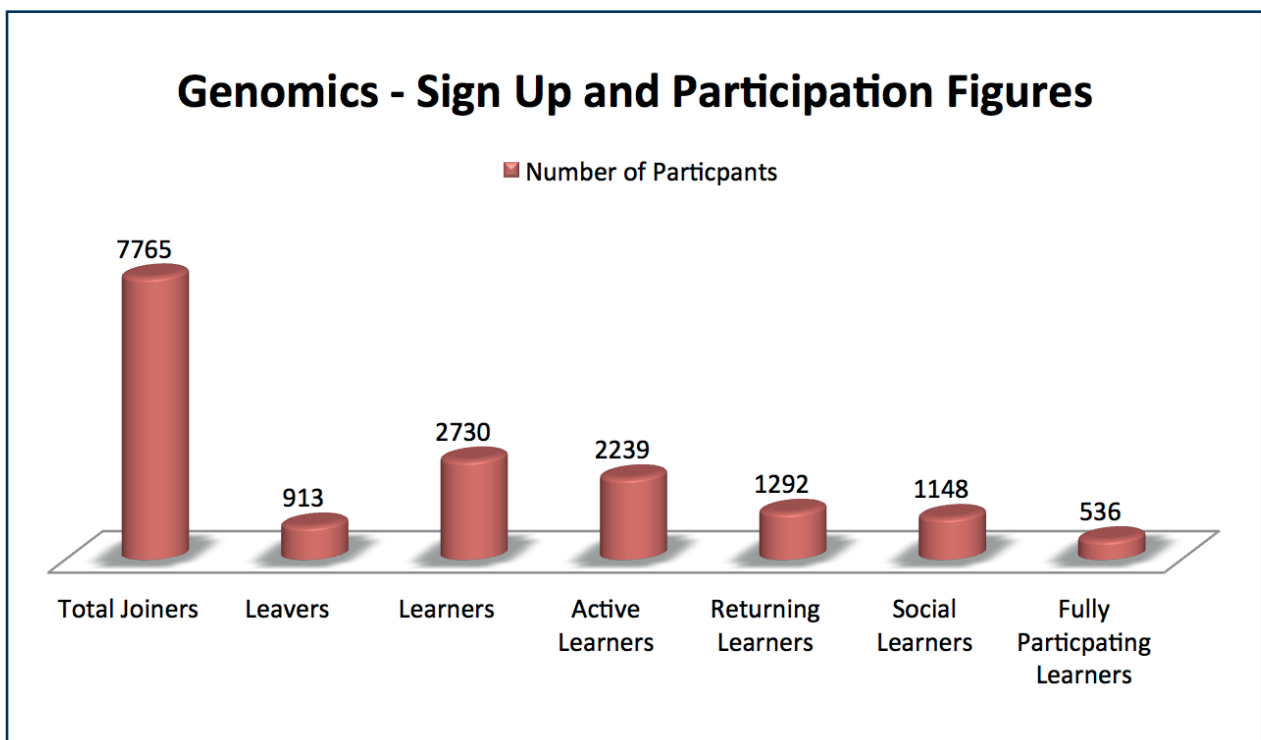
The graphs below highlight these figures -



Graph 1. Source: FutureLearn Website

Category Explanation

Learners	an individual who viewed at least one step
Active Learners	learners who marked at least one step complete
Returning Learners	learners who completed steps in more than one week
Social Learners	learners who made at least one comment
Fully Participating Learners	learners who completed a majority of steps



Graph 2. Source: FutureLearn Website

These graphs highlight the steep decline from initial course joiners to those who actively engage within the course. This is comparable with MOOC data from other providers (Clow, Doug (2013), Edinburgh Research Archive (2013)). Though it should be noted that the Active Learner category may be somewhat misleading; on the FutureLearn site there is an option to mark steps as completed but it is possible to progress through the course without marking any steps as completed. It therefore appears that this function is more for the learner's own sense of progression rather than a truly accurate measure of participation. Figures for Social Learners may be more useful in terms of understanding course engagement; but of course it should be noted that some learners may wish to observe the course and therefore may be considered 'silent' learners. In any case for both courses it can be seen that participation figures were robust.



Participation was strong across both courses, despite the current downward trend in participation that is expected of a MOOC as the course progresses from week to week. The two tables below highlight the participation levels broken down into weeks for both courses:

Right vs Might in International Relations						
<div> Overview Totals Weekly </div>						
Week	1	2	3	4	5	6
Learners visiting steps	3,013	1,473	1,208	929	763	886
Active learners	2,572	1,248	1,024	811	665	631
Social learners	1,398	495	370	338	287	242
Visited Steps	46,098	20,602	27,013	17,679	15,108	13,877
Average visited steps per user	15	13	22	19	19	15
Completed steps	41,080	18,759	25,066	16,425	14,117	11,566
Average completed steps per user	15	15	24	20	21	18
Comments	7,390	3,164	3,885	3,325	2,729	2,152
Average comments per user	5	6	10	9	9	8

Source: FutureLearn Website

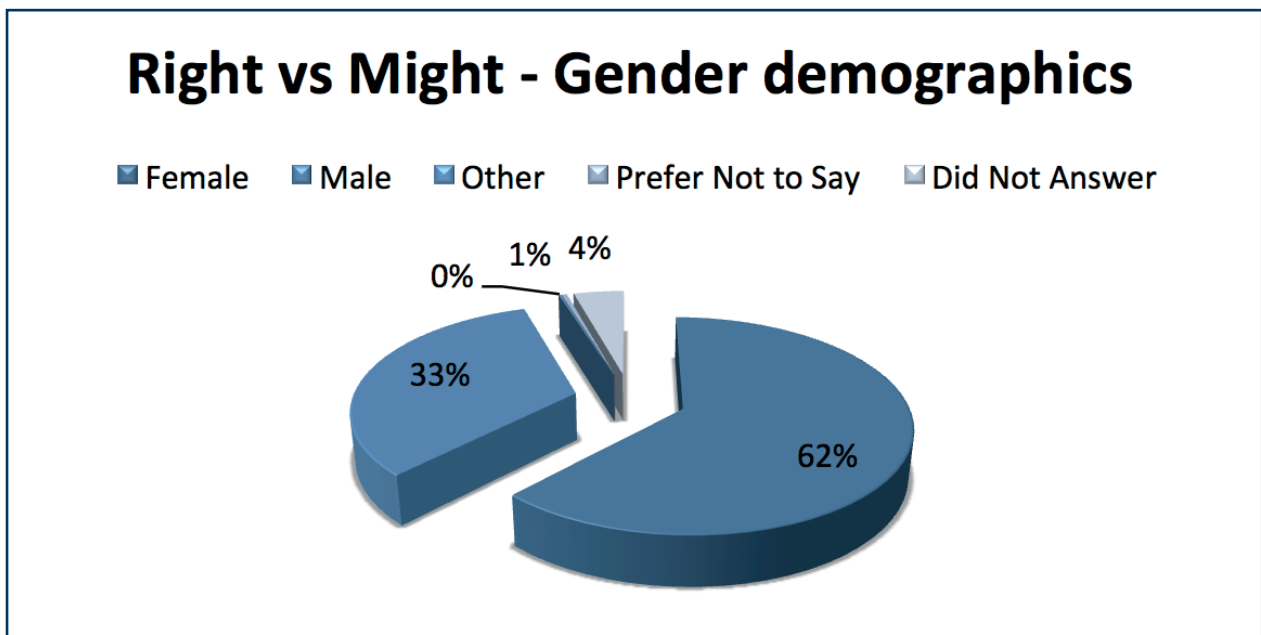
Cancer in the 21st Century: The Genomic Revolution						
<div> Overview Totals Weekly </div>						
Week	1	2	3	4	5	6
Learners visiting steps	2,595	1,423	1,181	1,012	924	998
Active learners	2,195	1,242	1,043	914	822	776
Social learners	1,076	287	376	279	202	280
Visited Steps	38,969	16,192	19,371	20,474	17,490	17,743
Average visited steps per user	15	11	16	20	18	17
Completed steps	34,695	14,923	17,972	19,310	16,350	14,793
Average completed steps per user	15	12	17	21	19	19
Comments	3,369	979	1,484	941	706	985
Average comments per user	3	3	3	3	3	3

Source: FutureLearn Website

Despite the initial, large drop off from weeks 1 to 2, both courses held onto the vast majority of participants beyond this point till the end of the course. Weekly comments remained high and fairly static from week 2 onwards with the average post per user for Genomics remaining at 3 and Right vs Might raising from 6 in week 2 to 10 in week 3 before slightly declining to 9 in weeks 4 and 5 and then 8 in week 6. It is worth noting again that these two MOOCs dealt with very different subject matter and therefore average comments figures should be considered in light of this difference. Broadly speaking the Right vs Might course was designed to be more of a debating experience for learners and so it is not surprising to see a higher average post per user figure for this MOOC.

Gender Demographics

Demographic information for both courses demonstrate a strong tendency in favour of female participants compared to male (62.2% female participants for Right vs Might and 69.48% of participants on Genomics identifying as female). This finding is in keeping with FutureLearn's general experience so far with gender enrollments, as mentioned by their CEO at a recent meeting.



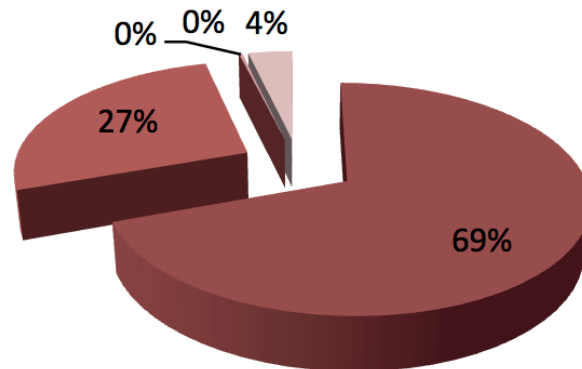
Graph 3. Source: FutureLearn Precourse Survey

Right vs Might - Gender demographics

Category	Number (n= 656)	%
Female	408	62.20
Male	216	32.93
Other	1	0.15
Prefer Not to Say	3	0.46
Did Not Answer	28	4.27
Total	656	100

Genomics - Gender demographics

■ Female ■ Male ■ Other ■ Prefer Not to Say ■ Did Not Answer



Graph 4. Source: FutureLearn Precourse Survey

Right vs Might - Gender Demographics

Category	Number (n= 747)	%
Female	519	69.48
Male	199	26.64
Other	0	0.00
Prefer Not to Say	2	0.27
Did Not Answer	27	3.61
Total	747	100

Education Level

The vast majority of participants (65.7% for RvM and 73.49% for Genomics) have an undergraduate degree or higher. This highlights a large cohort of returning adult learners but also suggests that between a quarter to a third of participants could be sampling higher education for the first time. On the basis of our experience of interacting with the learners during the Right vs Might MOOC this group could broadly be further divided into two sub-groups: firstly, those adults who have never attained a university education; and, secondly those who have not yet undertaken university education, e.g. students during gap years or still at school.

Learner Quotes from Right vs Might:

“I am a sixth-form student and I’m very interested in politics and law. I would love to do international law at university and I am hoping that this course will give me some insight and a hint of what is to come in the future. Also, the reasons behind international events that make it into the news always interest me, so having the option to learn more about those events, discuss them and further my understanding of them is an opportunity that I couldn’t miss.”

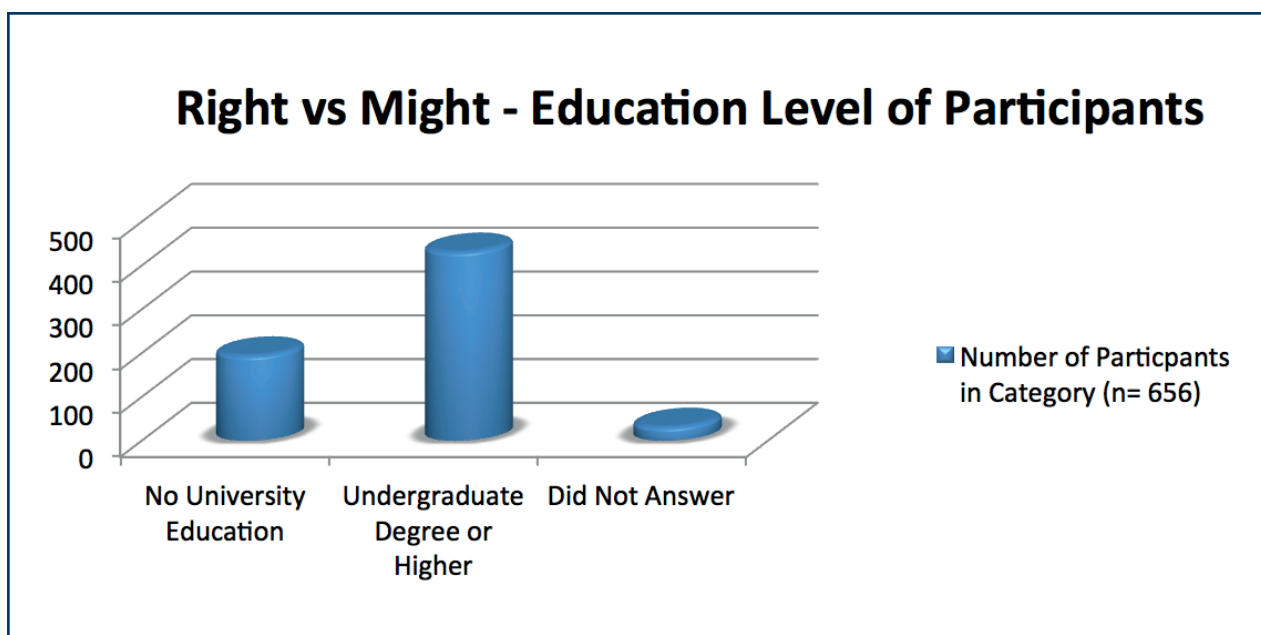
“I am in my 50’s and looking to stretch my horizons. I have signed up for the course out of interest and because i enjoy discussing ideas and learning new things.”

Learner Quotes from Genomics:

The subject matter of Genomics meant that it attracted some people with personal experiences of cancer.

“I’m here because my father-in-law has cancer (a rare form, apparently - apocrine adenocarcinoma) so I’m trying to learn more about cancer in general.”

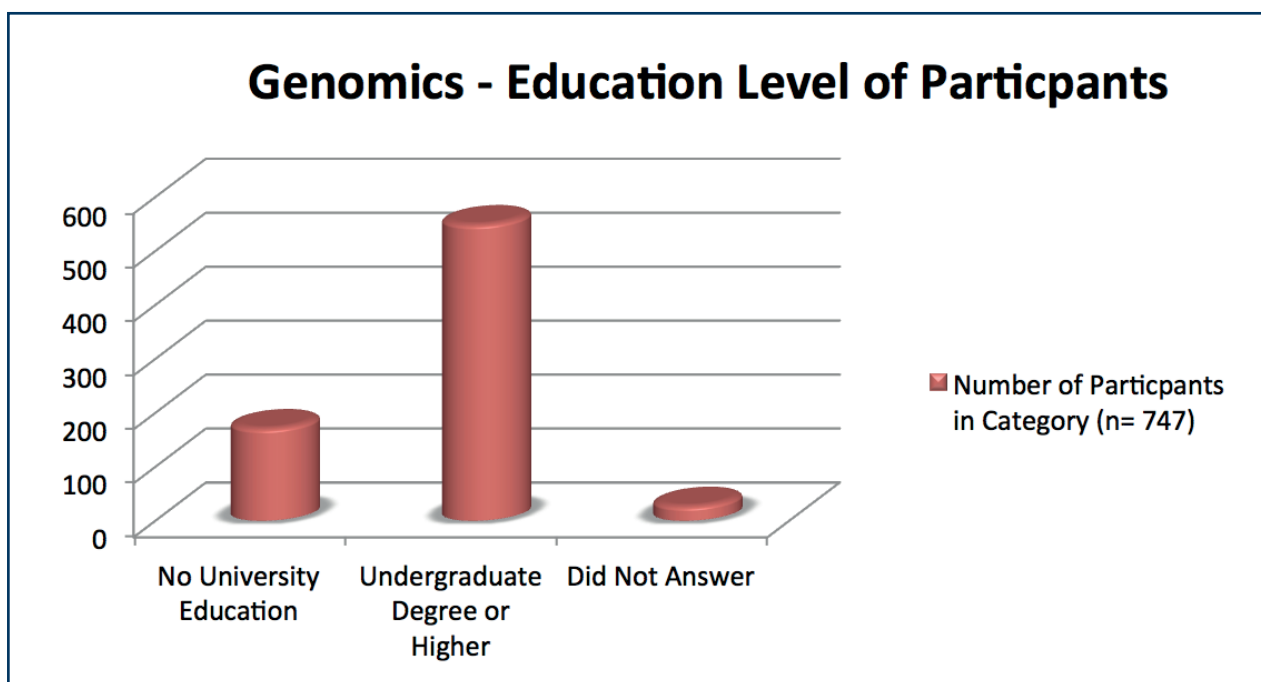
“I have suffered from prostate cancer and am interested in finding out more. I have already taken the Bath University FutureLearn course on cancer and am using this course to build up further knowledge.”



Graph 5. Source: FutureLearn Precourse Survey

RvM - Education Level

Category	No. of Participants in Category	%
No University Education	194	29.57
Undergraduate Degree or Higher	431	65.70
Did Not Answer	31	4.73
Total	656	100



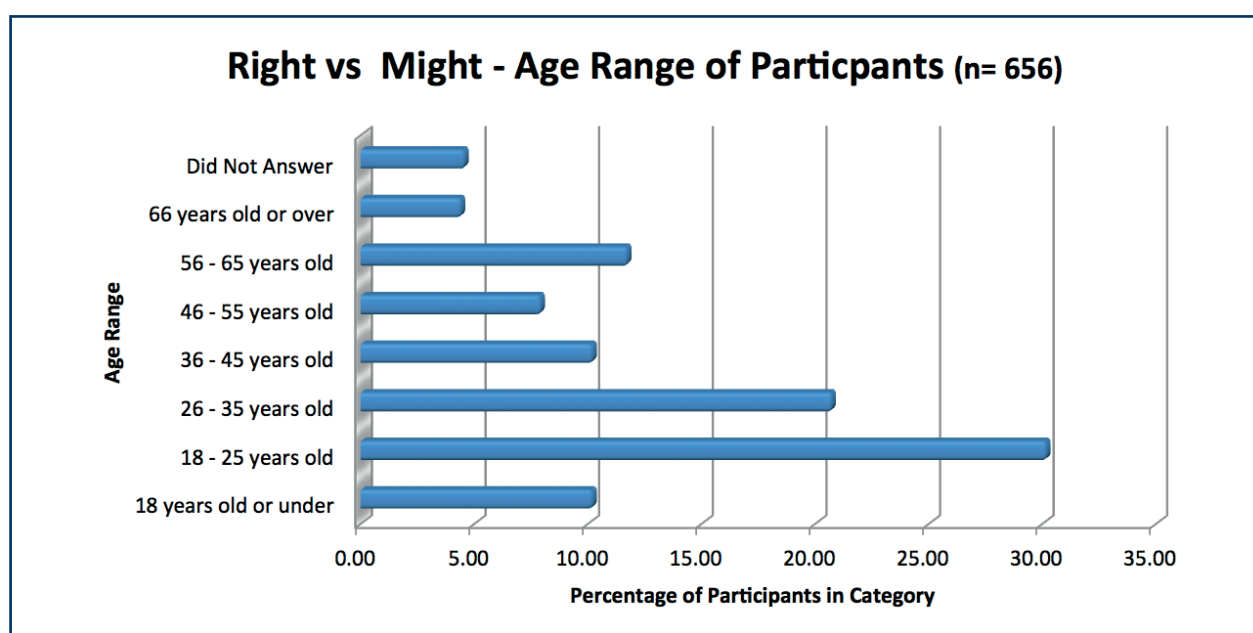
Graph 6. Source: FutureLearn Precourse Survey

Genomics - Education Level

Category	No. of Participants in Category	%
No University Education	171	22.89
Undergraduate Degree or Higher	549	73.49
Did Not Answer	27	3.61
Total	747	100

Age Range

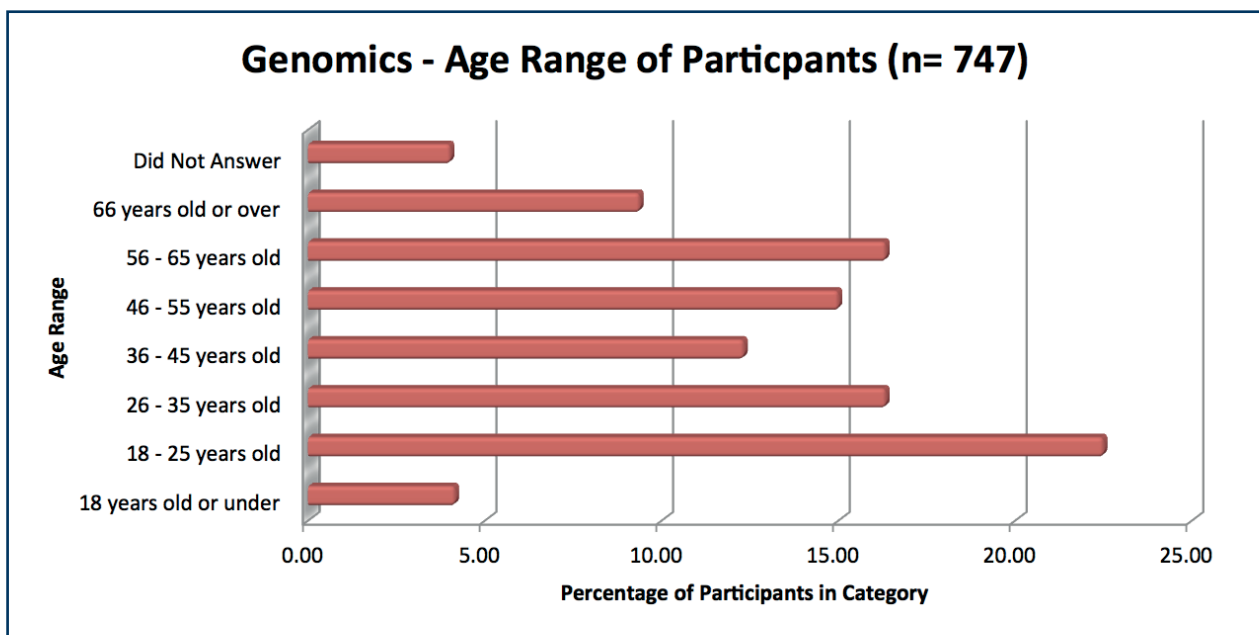
The age ranges of those undertaking the courses differed somewhat between the two courses. The majority of participants (just over 50%) on Right vs Might were under the age of 35, while Genomics had a greater, more even spread of ages with a large cohort coming from 46-65 age range (just over 31% in this age bracket). Whilst the spread was generally more even for Genomics the single largest group was the 18-25 bracket with 22.49% in this category. Various interpretations can be drawn from this data but it may be fair to say that those individuals in the 18-25 age bracket appear more inclined to undertake such courses; and this could be because individuals within this bracket are more likely to be currently undertaking higher education but it may also say something about the technology usage varying with age. However, a note of caution should be made regarding this last point when considering the significant proportion in both courses of those participants aged over 45 years (24.09% for Right vs Might and 40.69% for Genomics).



Graph 7. Source: FutureLearn Precourse Survey

Right vs Might

Age Range	Number	%
18 years old or under	67	10.21
18 - 25 years old	198	30.18
26 - 35 years old	136	20.73
36 - 45 years old	67	10.21
46 - 55 years old	52	7.93
56 - 65 years old	77	11.74
66 years old or over	29	4.42
Did Not Answer	30	4.57
Total	656	100



Graph 8. Source: FutureLearn Precourse Survey

Genomics

Age Range	Number	%
18 years old or under	31	4.15
18 - 25 years old	168	22.49
26 - 35 years old	122	16.33
36 - 45 years old	92	12.32
46 - 55 years old	112	14.99
56 - 65 years old	122	16.33
66 years old or over	70	9.37
Did Not Answer	30	4.02
Total	747	100

The map below highlights the top 10 countries that participated in Right vs Might and Genomics respectively.

These figures are from participants who took part in the pre-course survey and successfully answered this question.

Map 1: Location of Right v Might participants:



Map 2: Location of Genomics participants

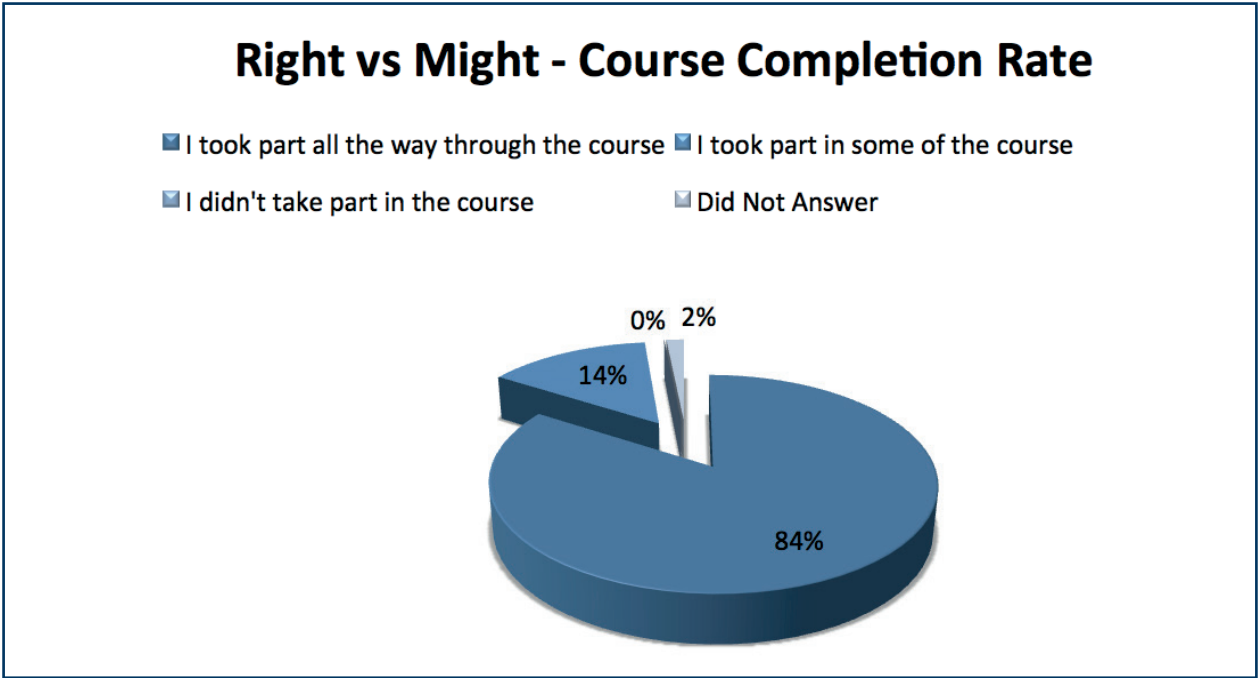


Course Completion Rates

The following charts demonstrate the course completion rate for each course. The data are derived from FutureLearn's post-course survey and therefore whilst these figures are useful it is worth considering that this group is somewhat self-selecting in that those completing a post-course survey may be more likely to have completed the course. When comparing these completion figures (Right vs Might 84.05% and Genomics 87.17%), which are based on the relatively low numbers who completed the post-course survey (Right vs Might 257 learners and Genomics 226), with the enrollment figures above the picture looks quite

different. If taking the percentage of Fully Participating Learners (as shown in Graphs 1 and 2, above) of the total number of joiners for each course (Right vs Might 5,855 and Genomics 7,765) the completion rate figures come out as 12.57% for Right vs Might and 6.9% for Genomics.

However, as stated above the FutureLearn categories may not be fully representative of reality as their category of Fully Participating Learner is one who clicks the ‘complete’ button on a majority of the steps. Pressing ‘complete’ is not a requirement to continue the course (apart from the Statement of Participation requirement, see below) and so these figures do not represent those who took part in course without clicking this button. It may therefore be more useful to consider the percentage of the total joiners who became Social Learners (Graphs 1 and 2, above), i.e. those who made at least one comment. The figures for this category are 25.38% for Right vs Might and 14.78% for Genomics. Again, due to the nature of the data available it is difficult to provide a conclusive view of how many learners are retained for the full duration.



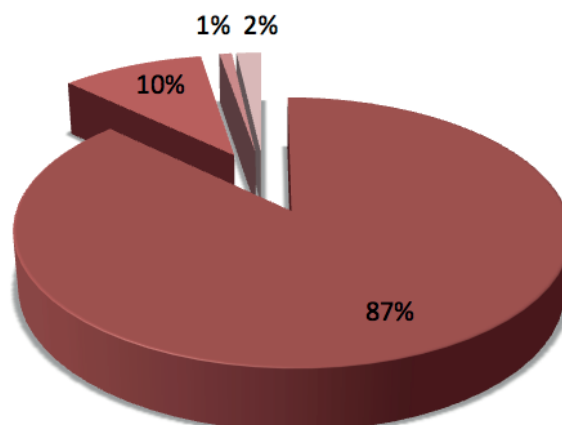
Graph 9. Source: FutureLearn Post-course Survey

Right vs Might

Category	Number	%
I took part all the way through the course	216	84.05
I took part in some of the course	37	14.40
I didn't take part in the course	0	0
Did Not Answer	4	1.56
Total	257	100

Genomics - Course Completion Rate

■ I took part all the way through the course
 ■ I took part in some of the course
■ I didn't take part in the course
 ■ Did Not Answer



Graph 10. Source: FutureLearn Post-course Survey

Genomics

Category	Number	%
I took part all the way through the course	197	87.17
I took part in some of the course	23	10.18
I didn't take part in the course	2	0.89
Did Not Answer	4	1.77
Total	226	100

Statement of Participation

Both courses offered statements of participation which allowed the user to purchase a printed statement from FutureLearn at the cost of £29. This statement is evidence that the user has taken part in a course on FutureLearn and have satisfied the definition of participation; generally marking more than 50% of activities as complete. A statement of participation implies neither the award of credit points nor the conferment of a university qualification.



Statements purchased:

Right vs Might = 98

Genomics = 125

Statement of Participation available to purchase

Feedback from participants who bought statements of participation and why:

“to evidence studies”

“It’s a great thing for university”

“It will improve my CV and improve my chances to get into Masters.”

“To confirm my interest in the subject to potential future employers”

“To recognise my work with Glasgow University on this course and to add it to my degree qualifications and as a CPD reference”

Peer Review Process

Assessment was a difficult area to successfully integrate in both courses due to their large cohort figures. The FutureLearn platform only allowed for limited types of assessment; a multiple choice quiz or peer review.

Right vs Might did not adopt the use of quizzes as it wasn’t a suitable model to integrate into the curriculum (see development phase above for further discussion). The surface level knowledge a quiz typically assess wouldn’t have provided the participants with a true assessment of what they had learned on that course. Instead, the team focused on a peer review exercise at the end of week 6.

The process of the peer review exercise allowed participants to produce a short (<1,000 words for Right vs Might and <300 words for Genomics) memo/report which was then reviewed by a fellow participant. The reviewer follows basic marking guidelines and provides short feedback on the submission. When a participants’ report has been peer reviewed, they are instantly returned the feedback allowing for reflection and forum discussion to take place.

Genomics did integrate quizzes, tests and peer review in their course. In most weeks there was one short quiz and an 'end of week' test. These consisted of five multiple choice questions and were designed to test basic knowledge related to the core content of the week. Links relating back to the relevant content were provided once an initial attempt to answer a question had been made and in some cases clues were given as to the correct answer. In terms of the difference between quizzes and tests, the essential difference is that in a quiz each question can be attempted indefinitely whereas in a test there is a maximum of three attempts with the mark counting towards the students' final score. Student views of the tests differed although in general they seemed to have been appreciated with students debating the answers in some instances.

128 participants took part in the peer review process for Right vs Might and 174 for Genomics. Below are some comments from participants on the use of peer review in a massive, online scale.

Right vs Might

"Being able to peer review really allowed me to look at other peoples much more impressive ability to structure their argument than me. Also really helped to open up my horizon to everyones differing interpretations."

"The exercise was quite challenging by MOOC standards but thought-provoking. Appreciated the feedback which was appreciative and constructive."

"The confines were a bit narrow. A good idea but not the most interesting scenario."

"It was too technical for me. I did get more out of my colleague's review."

"I found the course really interesting but hard for me to grasp. I am glad I had a go at the assignment because I feel like I have completed the course. Thanks."

Genomics

"Having written scientific papers in the past I felt I had some experience however I found trying to compress all the ideas into 300 words very daunting but an excellent challenge. Undertaking an assignment was a little daunting. I do not feel competent to review another's work that too was daunting."

"I approached it as a chore but there was a significant increase in my understanding of areas of epigenetics and of the complexity and potential of the field.

The assignment was a very good chance to identify my mistakes and my understanding at a deeper level."

Overall, the peer review exercise was found by both teams to be a useful tool for empowering the participants and engaging them in novel online assessment practices. The success of the peer review exercise lay with the participants who took part. As many of the participants came to the course with varying subject knowledge, some may have felt uncomfortable with peer reviewing others' work and as a result returned poor or no feedback. The assignment design was aimed to be suitable for users of all ability levels

as a means of demonstrating their skills and knowledge acquired on the course. The assessment guidelines were intended to be straightforward and unambiguous and allow the reviewer the freedom to provide helpful feedback. Inevitably, some people were disappointed with the asymmetrical nature of their feedback, i.e. where one individual had a good grasp of the material but they were reviewed by an individual with less ability or who had given less care to the review than the original individual gave to the assignment. However, as previously stated the nature of a MOOC means that the numbers of participants submitting an assignment would be difficult for staff to deal with. The peer review exercise also plays to the strengths of the MOOC format which places great emphasis on community learning. This strength may at times also be a weakness for some learners (as the asymmetrical example suggests) but on balance the approach appears to be successful and well-received.

Participant Comments

“Thank you so much for this course. It has been fascinating and I can’t wait to study law at university now!”

“Right chaps, get to work, we need Part II.”

“I really enjoyed this MOOC, it was my first one and I’m very impressed!”

“Obviously a lot of time and effort went into putting the course together – thank you! - your efforts are much appreciated. The comments also provided a lot of good information – I was really impressed by the tone, thoroughness, and responsiveness of the course team.... – well done indeed!”

“Thank you for a great course so well presented. It was fascinating to learn of the personalised way in which cancer treatment is being viewed. I enjoyed the self testing quizzes too. Thank you to all the lecturers who gave so much of their time.”

“If I were starting a career now, genetics research in general and cancer genetics in particular would be a definite probability.”

“What a fantastic journey Glasgow Uni. has taken us on. The presentation, videos, articles, tasks were very well presented and I liked the way the units followed on from each other in a linear way.”

“Thank you to all my fellow learners for the constructive comments throughout the course. My mentors i thank you, for you have given me a wealth of knowledge and insight on key aspects of International law.”

“MOOCS are a good way for people to develop professional skills, especially if you are at home looking after small children. I have felt quite privileged at having access to reading materials and a well directed course, for free.”

“An excellent course which is a wonderful advert for Future Learn and for University of Glasgow International Law. I wouldn’t want to study at any other University.”

“Outstandingly brilliant! Well done University of Glasgow for such a challenging, thought provoking and interesting course. Never thought I’d do this as a MOOC”

“This course has been brilliant.... it has helped me understand so much more about the needs of patients and the medical and financial challenges that we all face. Thanks to all the course tutors - they have done an excellent job and are a credit to their university.”

PHASE 4 - EVALUATING THE STAFF EXPERIENCE

Right vs Might

We have seen above that for learners a successful MOOC is one that provides interesting information in an accessible way with space for discussion. Staff input, therefore, is essential not only at the creation stage but also in the delivery. The two MOOCs under discussion were significantly different not only in subject matter but also in delivery style. Notably, though, both of these MOOCs enjoyed a high degree of success in terms of learner feedback and participation. And personal benefits from being involved were recorded as: “Interesting to do something different! I learned a lot.”

“An awareness of the whole [MOOC] area ... and getting to grips with what the field is. Also, it's been good for me in terms of making a lot more contacts within the life-sciences and medical school.” In particularly connecting with “researchers interested in getting involved with teaching-type aspects”

There was also some comment about the need to adjust normal academic delivery style and thus depart from the usual lecture format in order to create bite-sized information for the learners and to meet the constraints of the FutureLearn site. Though generally, once the initial shift had been made, this was considered to be a benefit as the process allowed them to hone media and presentation skills with one academic remarking that it allowed them practice being “succinct”. For one academic this approach has had an impact on their university teaching in terms of breaking up lectures having “interludes” and “think about what peoples’ attention spans are”.

All of the academics involved remarked on the fact that in terms of work-load the MOOC process was very top-heavy with the majority of work being required at the development stage. All academics agreed that the work-load was shared with the other lead academics involved in providing content. However, MOOC work was done on-top of the usual commitments of academic life and thus although there was awareness within departments that academics were engaged on this project all of those academics interviewed have discussed the option of having a proper “buyout” of their time. Although as one academic suggested the practicality of this may be tricky when considering the particular specialisms of each academic and their teaching load. One academic with a lead role in the MOOC development suggested that the development process probably took “300-400 hours in total” which was “as an extra alongside a few months of regular academic work”. This academic remarked that preparation of course material took the least amount of this time and indeed that:

“the bulk of the time was spent sorting out the fundamentals, sorting out the involvement of this person or that person, sorting out roles, coordination between various stakeholders involved – both in Glasgow and outside the university ... Because this was an extra alongside regular duties it required a considerable amount of coordination to make it all work with the schedule of the media unit.”

Between the two MOOCs there is some difference in terms of the development stage. RvM had greater support from e-learning staff in terms of creating the course content; whilst the Genomics academic team appears broadly to have had to deal with this alone. This meant that they spent considerable time doing technical tasks such as “days chasing up copyright ... re-doing other people’s slides (partly for FL format, partly for content and pitch), chasing up staff for filming lectures (latter two points were a problem because we had multiple guest lecturers throughout the MOOC).”

Thus whilst academic teams have acknowledged the importance of their respective schools acknowledging their time commitments the time investment was considerable. The Genomics MOOC academics commented on the importance of “a sympathetic line manager” without which the task would have been “impossible”. Nevertheless the MOOC was a “huge time drain”. The experience was similar from the RvM academics one of whom commented that despite the fact that the law school factored the MOOC in to “our regular law school work model ... In retrospect, I think even the relatively generous allocation of hours was nowhere near to reflecting the actual time spent on the project.”

Overall in discussing the time taken all academics agreed that it had taken “much more than we anticipated” although there was a recognition that “if we did it again we could probably do it faster”. Working to the FutureLearn format required adjustment from regular academic delivery styles and this was seen to be a significant proportion of the preparation time with general organizational time as the largest part. Nevertheless, all of the academics involved remarked that the experience was generally a positive one and many of the problems encountered were down to this being the first time and so all of those involved were to some extent unsure about what to expect and how much time things would take. For both MOOCs time or organizational constraints meant that the course content was not reviewed by a non-subject expert. This was something the academics felt was missing and would have been useful.

There are some general points made by all of the academics to some extent that are worth finally considering. Firstly, they emphasize the importance of having a clear vision of what and who is involved with the potential that without this clarity there is a danger of “too many layers”. In this respect the academics have commented that whilst the work was split between those in lead academic roles there is the requirement for considerable coordination in this respect and this must be considered in the light of regular academic duties and schedules. There appears therefore that a balance needs to be struck between having sufficiently varied academic involvement to ensure interest and manageable coordination of various people and schedules. The academics have also raised the consideration of whether a six-week MOOC is too long both in terms of staff commitment and time but also learner engagement. Secondly, the academics have raised the questions of what is ultimately gained from the MOOC experience beyond the satisfaction of doing them. In this respect there are two strands raised from Genomics and RvM. Firstly, the Genomics academics have brought up the matter of CPD and potentially having MOOC learners sit an “in-centre” test. This addresses the question of practical utility of the MOOC. Likewise, the RvM academics have suggested that perhaps by using the MOOC to “construct a more didactic tool for really teaching people something” this could then be sold to those seeking specific expertise within government departments or the like or perhaps specialist MOOCs could be created in partnership with specialized agencies who are seeking to have an educational module to be used as a training tool. In short, with

such a high the level of investment from academics the question of return is crucial. Thirdly, the matter of marketing has been raised. Whilst the academics acknowledge that both of these MOOCs represent a first time out and so there are bound to be lessons to be learnt there is a general feeling that in future MOOCs greater attention should be paid to the marketing strategy and greater promotion to achieve a greater number of subscribers. Finally, all academics agreed that beyond the preparation of the course materials the forum moderation was key to the success of the MOOC and learner experience. In this respect where GTAs were employed they were key to the delivery and creating the learning environment for learners. This is especially so considering the more discussion based nature of the RvM content. Clearly, where GTAs were not employed the academic staff had to cover this area themselves and thus whilst, in general, this was not considered to be as intensive a task as the development it was still time consuming.

Summary

MOOCs have undoubtedly changed the higher education landscape. Whether this is just a passing trend or the future globalisation of free higher education to the world, is still to be determined.

Since the completion of these two courses, the University of Glasgow has successfully completed the first run of a World War One MOOC, in partnership with the BBC and a consortium of 3 other Universities. This is due to run again in the summer of 2015 after attracting almost 10,000 participants. In November 2014, the University's Senior Management Group announced that there will be future MOOC funding available in 2015 for the creation of new courses and also for the re-run of these two existing courses.

Based on the early experiences of the two teams, MOOCs at Glasgow should not be seen as a replacement for existing provision, but rather an additional method of delivery and engagement to be used to achieve particular objectives, such as:

- widening participation;
- aiding student transition;
- enhancing reputation;
- forging external links;
- aligning with University strategies in L&T and Internationalisation;
- Continued Professional Development

As this document shows, the two sets of staff who were involved with the first two MOOCs at Glasgow had different reasons for being involved, and took considerably different approaches to the design and delivery of their courses. Both teams worked according to their own staffing arrangements and to their own schedule (albeit under the overarching institutional (FutureLearn and GU) project timelines. However, from the very beginning, there was a strong feeling between the two teams of mutual support and a willingness to collaborate on this new and exciting (and somewhat uncharted) adventure. Where possible they shared knowledge and offered advice to one another in order to ensure both courses were successful in their pedagogical aims and in enhancing the international reputation of the University. Both teams hope that this sense of collegiateness continues and is paid forward into future courses, which is why they have offered this insight into their experiences for you to share and build upon in the future.

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